Audio/visual equipment setup guide

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information technology lab

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Using the Cassette Player in Room 1 1 1 - *Cheat Sheet*

Brief instructions on using the stationary cassette player in room 111

1.0   On PRIMARY CONTROL (Console #1)

    1.1   Select Power ON (button lit).
    1.2   Select Ceiling speakers ON (button lit).

2.0   On RECEIVER (Console #1)

    2.1   RECEIVER should be ON (text is shown in display window).
    2.2   Select TAPE DECK button (displayed text: TAPE).

Please Note: **The volume knob on the PRIMARY CONTROL is for the ceiling speakers. The volume knob on the RECEIVER is for the speakers on either side of the whiteboard.**

3.0   On TAPE DECK (Console #1)

    3.1   TAPE DECK should be ON (lights are on)
    3.2   Insert and play tape.

4.0   Clean up

    4.1   Remove cassette from TAPE DECK.
    4.2   Power OFF to PRIMARY CONTROL.

Setting Up and Displaying Laptop Computers in Room 111

Instructions on setting up and projecting a laptop computer display in room 111

Please note that most laptops cannot be connected to the network and may not be able to access the Internet. Contact Justin or David for more info.

1.0 Initial setup

1.1 Be sure to have the dark gray cable which has both monitor and speaker connections on each end, and which is labeled for laptops *(kept on the podium in Room 111).*

1.2 The laptop should be kept on or by the podium so that the cable can easily reach the wall jacks.

1.3 Two wall jacks are beneath the white board near the podium; one is labeled **CPU** 1, the other **CPU** 2. These are the jacks to connect the projectors to the laptop using the dark gray cable. Either jack may be used.

The wall jacks labeled **101D1** and **101D2** are for network connections and often cannot be used with laptops. Contact Justin or David.

Plug the computer's power cord into the wall outlet to the right of the 101D1 and 101D2 jacks.

1.4 Connect one end of the dark gray cable to the back of the laptop. Connect the other end to CPU1 or CPU2, and the speaker port.

1.5 Once all cables are connected, turn on laptop.

2.0 On PRIMARY CONTROL (Console #1)

2.1 Select Power ON (button lit).
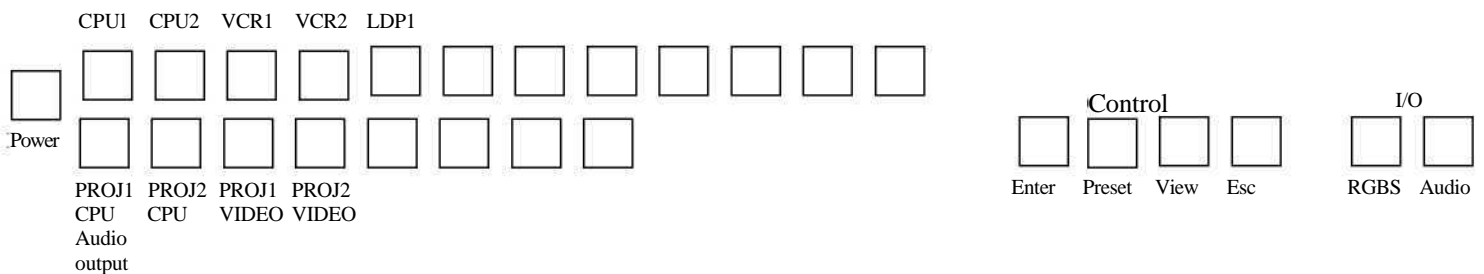2.2 Select Ceiling speakers ON (button lit).

3.0 On RECEIVER (Console #1)

3.1 RECEIVER should be ON (text is shown in display window).
3.2 Select SWITCHER button (displayed text: DVD/TV).

4.0 On SWITCHER (Console #1) *[see Image below and Figure B]*

Figure B

Switcher

CPU1 CPU2 VCR1 VCR2 LDP1

Power

PROJ1 PROJ2 PROJ1 PROJ2
CPU   CPU   VIDEO VIDEO
Audio
output

Control

Enter Preset View Esc

I/O

RGBS Audio

4.1   Power should be ON (button lit).

4.2   Deselect all buttons under the labels **CONTROL** and **I/O** (lights above buttons should be OFF).

4.3   Under the label **I/O,** Select the button **RGBS** (light should come on).

4.4   Select button **CPU1** or **CPU2** (red light should come on).

4.5   If any green lights come on elsewhere on the switcher, deselect those buttons.

4.6   Select button above label for projector output to be used for computer image projection: **(Proji CPU** or **Proj2 CPU).**

• **PROJ1 CPU** button is for the projector nearest the classroom door.

• **PR0J2 CPU** button is for the projector nearest the windows.

**Both projectors can be chosen if both screens are being used for display.

4.7   Press **ENTER** button [on the right side of switcher under "Control" label].

5.0   Projector Remote Control *(Should be on classroom podium)*
Note: remote control does not work well with fluorescent lights on.

5.1   Take the remote control, point it towards the projector you are using, and press the blue button on the upper left-hand corner. This is the power button. It will take up to a minute for the projector to warm up. There will be both solid and flashing green lights on the projector.

5.2   Once there are 2 solid green lights on the projector indicating that it has warmed up, you should see the computer's image on the screen - if the projector is not warmed up there will be no image on the screen. If the projector is warmed up but there is still no image, press the button labeled **COMPUTER.** Try pressing **COMPUTER** once again if there is still no image on the screen.

5.3   If you no longer need the projector, or if it will be turned off for more than 10 minutes, press the blue power button on the remote. This will turn off the projector. Please note that you cannot immediately turn the projector back on. It takes a few minutes for it to cool down and can be turned back on when you see a solid red light on the projector.

***   *To temporarily turn projector off, press MUTE on the remote. Projector will turn itself back automatically in 10 minutes, or when you press MUTE again.*

***   **If images are only being displayed on either the laptop or the room screens but you want to simultaneously display an image on both, try the following:**
        • Press F/N (Function key) and F3. Pressing this combination of keys should act as a toggle enabling an image to displayed 1) only on the laptop's screen, OR 2) only on the room's screen, OR 3) on both screens simultaneously.

The following additional steps are necessary only if audio output is required (the speaker wire, which is attached to the cable kept on the podium, needs to connected to either the CPU1 or CPU2 wall plate from the workstation).

<u>*Please Note:*</u> *The volume knob on the PRIMARY CONTROL is for the ceiling speakers. The volume knob on the RECEIVER is for the speakers on either side of the whiteboard.*

6.0 <u>On SWITCHER</u>

6.1 Under the **I/O** label: Deselect the **RGBS** button (light should go off).

6.2 Under the **I/O** label: Select the **Audio** button (light should come on).

6.3 Select the **CPU1** or **CPU2** button, depending on which wall jack the computer cable is connected to (CPU1 or CPU2) (red light should come on).

6.4 Select button above label for **PROJ1 CPU Audio output** (lower left-hand corner of switcher).

6.5 Press **ENTER** [right side of switcher].

7.0 <u>Clean up</u>

7.1 Power **OFF** to Projectors.

7.2 Power **OFF** to **PRIMARY CONTROL.**

7.3 Power **Off** to laptop.

7.4 Disconnect all cables. *The laptop cable used to connect the computer to the wall jack must stay on the classroom's podium.*

Using the Mitsubishi Portable Projector - *Cheat Sheet*

Brief instructions on setting up and projecting using the Mitsubishi portable projector in any room

1.0   Setup

1.1   Connect computer's network cable and plug in its power cord.

1.2   Connect extension cables kept with workstation (if not already connected):
a) one extension to monitor port on cpu (adapter needed with Mac)
b) the other extension to the monitor cable.

1.3   Connect the projector's black RGB cable***:
a) one end to the **COMPUTER 1 IN** port on projector
b) the other end to the extension cable leading to the monitor port on the cpu.

1.4   Connect the monitor cable to the **COMPUTER OUT** port on the projector***.

***   *Use the beige extension cables kept on the cart if more room is needed between the computer and the projector.*

1.5   Connect the projector's power cord from the **AC** IN port on the projector to the power strip on the cart.

1.6   Plug the power strip cord into an outlet or into the power strip on the back of the workstation.

1.7   Power ON to computer.

1.8   Power on to Mitsubishi in two steps:
a) turn on **MAIN** power switch on side of projector,   */f^s*
b) press the power button on the top of the projector *%uj)*   or the blue power button on the remote. *Note that the remote will not work well with the fluorescent lights on.*

1.9   After turning on the projector you will see a solid and a flashing green light on its top indicating that the projector is warming up (takes about 1 minute). When both lights are solid green, then the projector is warmed up and you should see the computer's image on the screen - if the projector is not warmed up there will be no image on the screen. If the projector is warmed up but there is still no image, press the button labeled **COMPUTER.** Try pressing **COMPUTER** once again if there is still no image on the screen.

2.0   Adjusting Height and Focus

2.1   The height of the projected image is adjustable using the two "feet" at the front of the projector which will drop down by pressing the black buttons on the front. The "feet" can also be moved by screwing/unscrewing them.

2.2   To **FOCUS** follow these steps:
a) On either the top of the projector or the remote press **ZOOM / FOCUS** which toggles between the zoom function and focus. Select FOCUS.
b) After selecting FOCUS use - + to sharpen the image.

3.0   Remote Control Additional Features *(Remote should be with the projector)*

Note: remote control does not work well with fluorescent lights on.

3.1   If you no longer need the projector, or if it will be turned off for more than 10 minutes, press the blue power button on the remote. This will turn off the projector. Please note that you cannot immediately turn the projector back on. It takes a few minutes for it to cool down and can be turned back on when you see a solid red light on the projector.

***   ***To temporarily turn projector off, press MUTE on the remote. Projector will turn itself back automatically in 10 minutes, or when you press MUTE again.***

***If <u>AUDIO OUTPUT</u> from the workstation is needed, then you will have to use the speakers kept in the storage basket on the cart.

4.0   Clean up

4.1   Power OFF to Projector. You will need to press either the projector's power button or the one on the remote, followed by turning off the **MAIN.**
4.2   Power OFF to computer.
4.3   Disconnect all cables. Make sure that the projector's remote and the black RGB cable stay on the projector cart.

Setting up and Displaying the Mobile Workstations in Room 111 - *Cheat Sheet*

Brief instructions for using the Room 111 mounted projectors to display images and output sound from the Lab's PC and Mac mobile workstations. These instructions assume that you have connected all of the workstation's cables.

For complete setup instructions, see Setting Up and Displaying Mobile Workstations in Room 111 - Step-by-Step

1.0   On PRIMARY CONTROL (Console #1)

    1.1   Power ON.
    1.2   Ceiling speakers ON.

2.0   On RECEIVER (Console #1)

    2.1   Power ON.
    2.2   Select SWITCHER (displayed text: DVD/TV).

3.0   On SWITCHER (Console #1)

    3.1   Power ON.
    3.2   Deselect all buttons under the labels **CONTROL** and **I/O.**
    3.3   Under the label I/O, Select the button **RGBS.**
    3.4   Select button **CPU1** or **CPU2,** depending on which wall jack the computer is connected to.
    3.5   If any green lights come on elsewhere on the switcher, deselect those buttons.
    3.6   Select button above label for projector output to be used for computer image projection: **(Proji CPU** or **Proj2 CPU).**

    • **PROJ1 CPU** button for projector nearest the classroom door.

    • **PROJ2 CPU** button for projector nearest the windows.

    **Both projectors can be chosen if both screens are being used for display.

    3.7   Press **ENTER.**

4.0   Projector Remote Control *(Should be on classroom podium)*

Note: remote control does not work well with fluorescent lights on.

    4.1   Take the remote control, point it towards the projector you are using, and press the blue button on the upper left-hand corner. This is the power button. It will take up to a minute for the projector to warm up. There will be both solid and flashing green lights on the projector.

    4.2   Once there are 2 solid green lights on the projector indicating that it has warmed up, you should see the computer's image on the screen - if the projector is not warmed up there will be no image on the screen. If the projector is warmed up but there is still no image, press the button labeled **COMPUTER.** Try pressing **COMPUTER** once again if there is still no image on the screen.

4.3   If you no longer need the projector, or if it will be turned off for more than 10 minutes, press the blue power button on the remote. This will turn off the projector. Please note that you cannot immediately turn the projector back on. It takes a few minutes for it to cool down and can be turned back on when you see a solid red light on the projector.

***   *To temporarily turn projector off, press MUTE on the remote. Projector will turn itself back automatically in 10 minutes, or when you press MUTE again.*

The following additional steps are necessary only if AUDIO OUTPUT is required. Please note that the speaker wire kept in the cart's black basket needs to be connected to either the CPU1 or CPU2 wall plate from the workstation's speaker port   )) (green-colored port on PC).

The volume knob on the PRIMARY CONTROL is for the ceiling speakers. The volume knob on the RECEIVER is for the speakers on either side of the whiteboard.

5.0   On SWITCHER

5.1   Under the **I/O** label: Deselect the **RGBS** button.
5.2   Under the **I/O** label: Select the **Audio** button.
5.3   Select the **CPU1** or **CPU2** button, depending on which wall jack the computer cable is connected to (CPU1 or CPU2).
5.4   Select button above label for **PROJ1 CPU Audio output.**
5.5   Press **ENTER.**

6.0   Clean up

6.1   Power OFF to Projectors.
6.2   Power OFF to PRIMARY CONTROL.
6.3   Power Off to Workstation.
6.4   Disconnect all cables.

Setting up and Displaying the Mobile Workstations in Room 111- *Step-by-Step*

Instructions for using the Room 111 mounted projectors to display images and output sound from the Lab's PC and Mac mobile workstations.

0.0   Initial setup

0.1   Move computer into 111 with the following items on the cart or in the cart's basket. **Each mobile workstation has its own set of labeled cables for 111.**

• 2 beige extension cables: 1 attached to the cpu (adapter needed for Mac) --1 attached to the monitor cable. These extensions should remain connected to the cpu and the monitor cable since they allow more flexibility in positioning the workstation. **These cables can also be used with the mobile projectors.**

• A split, dark gray cable with one end that connects to the wall jack, and, **a)** a **short length that connects to the extension leading to the monitor cable,** and **b)** a **longer length that connects to the extension leading to the cpu.** This cable is only used in 111.

• A thin, black cable that connects the wall jack speaker port with the speaker port on the cpu. This cable is only used in 111.

0.2   See *Figure A*

Two wall jacks are beneath the white board near the podium; one labeled **CPU** 1, the other **CPU** 2. These are the jacks to connect the projectors to the computers using the split, dark gray cable. Either jack may be used.

To their right of are two jacks labeled 101D1 and 101D2. These jacks are for connecting the computers to the network (including Internet access) via network cables and either may be used, no matter whether CPU 1 OR CPU 2 is used.

Plug the computer's power cord into the wall outlet to the right of the 101D1 and 101D2 jacks.
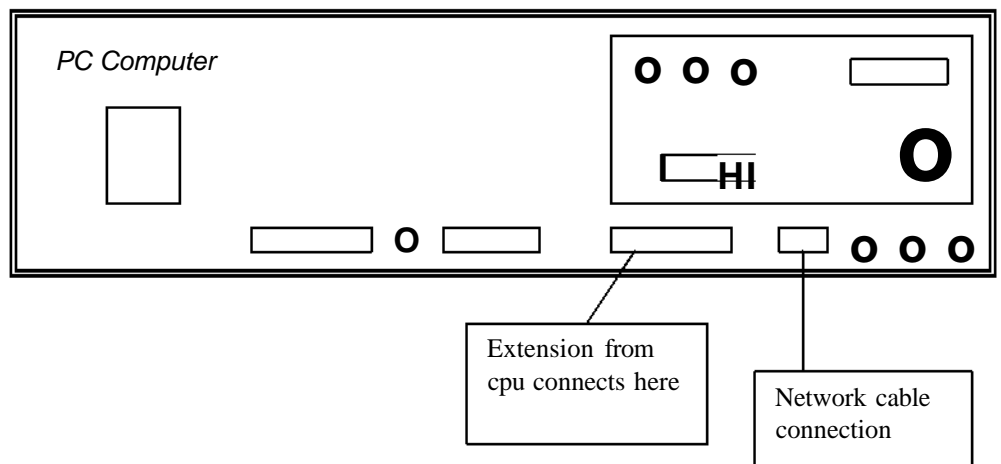
Figure A

CPU2

CPU1

101D1   101D2
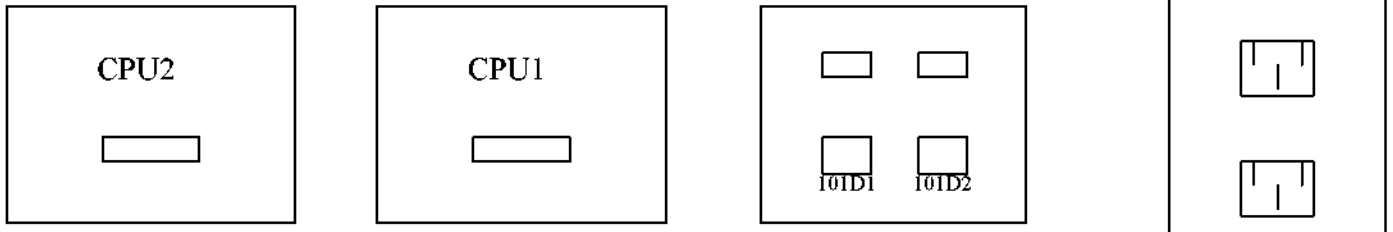
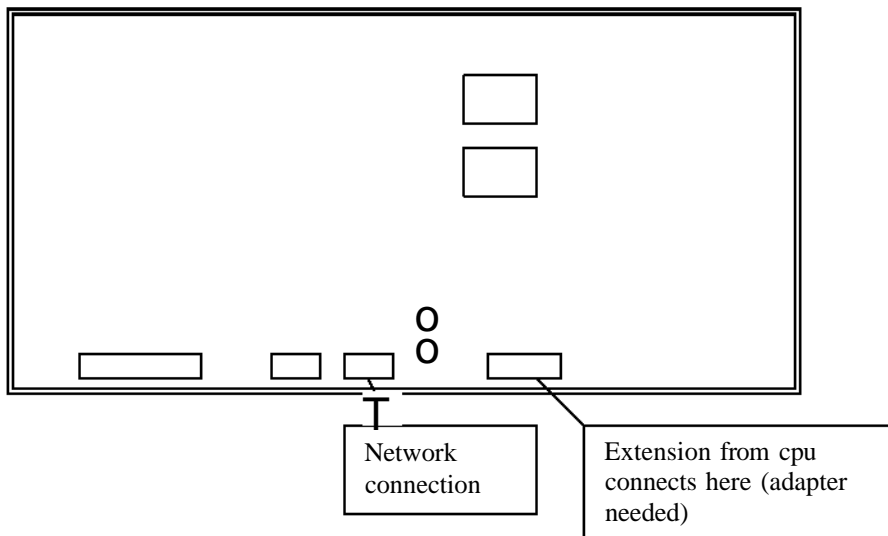Wall Jacks on south wall

0.3   Confirm that the network cable is connected securely from the back of the computer to either the 101D1 or 101D2 outlet.

0.4   Connect the extension cable attached to the cpu to the longer length of the split dark, gray cable, *[see Figure B].*

Figure B

PC Computer

HI

Extension from cpu connects here

Network cable connection

Macintosh

Network connection

Extension from cpu connects here (adapter needed)

0.5   Connect the extension that is attached to the monitor cable to the shorter length of the split dark, gray cable.

0.6   Connect the other side of the split, dark gray cable to CPU1 or CPU2.

0.7   Once all cables are connected, turn on workstation and monitor.

1.0   On PRIMARY CONTROL (Console #1)

This provides power to all of the components in the console, and to the ceiling speakers. It does not control power to the projector. The volume knobs control the ceiling speakers.

1.1   Select Power ON (button lit).
1.2   Select Ceiling speakers ON (button lit).

2.0   On RECEIVER (Console #1)

The Receiver works in tandem with the Switcher (see next step) where you choose the source of the image and/or sound to be projected. The volume knob on the Receiver controls the speakers at the front of the room.

2.1   RECEIVER should be ON (text is shown in display window).
2.2   Select SWITCHER button (displayed text: DVD/TV).

3.0   On SWITCHER (Console #1) *[see Image below and Figure C[*
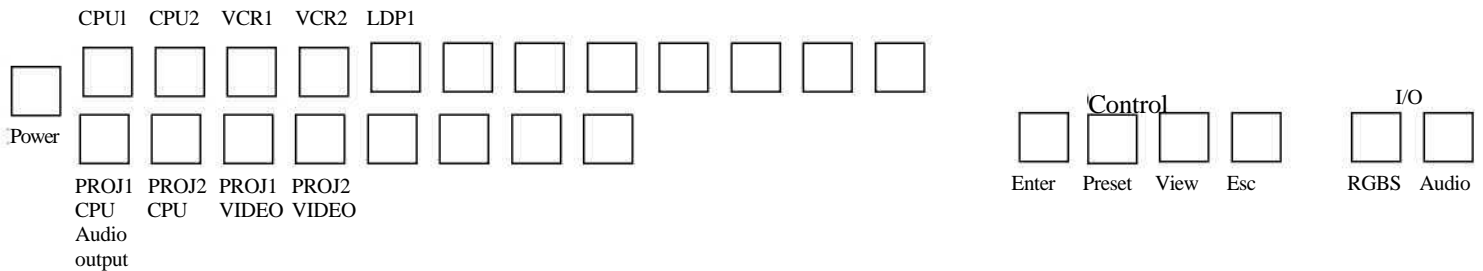
Here you first select the source of the computer image to be projected, either CPU1 or CPU2. Then you select which projector will display the image from

computer, either PROJ1/CPU, PR0J2/CPU, or BOTH). If needed, you can also use the Switcher to output sound from a computer.

Figure C

Switcher

CPU1 CPU2 VCR1 VCR2 LDP1

Power

PROJ1 PROJ2 PROJ1 PROJ2
CPU   CPU   VIDEO VIDEO
Audio
output

Control

Enter Preset View Esc

I/O

RGBS Audio

3.1 Power should be ON (button lit).

3.2 Deselect all buttons under the labels **CONTROL** and I/O (lights above buttons should be OFF).

3.3 Under the label **I/O,** Select the button **RGBS** (light should come on).

3.4 Select button **CPU1 or CPU2** depending on which wall jack the computer is connected to (red light should come on).

3.5 If any green lights come on elsewhere on the switcher, deselect those buttons.

3.6 Select button above label for projector output to be used for computer image projection: **(Proji CPU** or **Proj2 CPU).**

• **PROJ1 CPU** button is for the projector nearest the classroom door.
• **PROJ2 CPU** button is for the projector nearest the windows.

**Both projectors can be chosen if both screens are being used for display.

     3.7   Press "ENTER" button [on the right side of switcher under "Control" label].

4.0   Projector Remote Control *(Should be on classroom podium)*
Note: remote control does not work well with fluorescent lights on.

     4.1   Take the remote control, point it towards the projector you are using, and press the blue button on the upper left-hand corner. This is the power button. It will take up to a minute for the projector to warm up. There will be both solid and flashing green lights on the projector.

     4.2   Once there are 2 solid green lights on the projector indicating that it has warmed up, you should see the computer's image on the screen - if the projector is not warmed up there will be no image on the screen. If the projector is warmed up but there is still no image, press the button labeled **COMPUTER.** Try pressing **COMPUTER** once again if there is still no image on the screen.

     4.3   If you no longer need the projector, or if it will be turned off for more than 10 minutes, press the blue power button on the remote. This will turn off the projector. Please note that you cannot immediately turn the projector back on. It takes a few minutes for it to cool down and can be turned back on when you see a solid red light on the projector.

     ***   ***To temporarily turn projector off, press MUTE on the remote. Projector will turn itself back automatically in 10 minutes, or when you press MUTE again.***

The following additional steps are necessary only if AUDIO OUTPUT is required. Please note that the speaker wire kept in the cart's black basket needs to connected to either the CPU1 or CPU2 wall plate from the workstation's speaker port)) (green-colored port on PC).

<u>Please Note:</u> The volume knob on the PRIMARY CONTROL is for the ceiling speakers. The volume knob on the RECEIVER is for the speakers on either side of the whiteboard.

5.0   On <u>SWITCHER</u>

5.1   Under the **I/O** label: Deselect the **RGBS** button (light should go off).

5.2   Under the **I/O** label: Select the **Audio** button (light should come on).

5.3   Select the **CPU1** or **CPU2** button, depending on which wall jack the computer cable is connected to (CPU1 or CPU2) (red light should come on).

5.4   Select button above label for **PROJ1 CPU Audio output** (lower left-hand corner of switcher).

5.5   Press **ENTER** [right side of switcher].

6.0   <u>Clean up</u>

6.1   Power OFF to Projectors.

6.2   Power OFF to PRIMARY CONTROL.

6.3   Power Off to Workstation.

6.4   Disconnect all cables, but DO NOT disconnect the extension cables from either the cpu or the monitor cable.

Setting Up and Displaying Mobile Workstations & Video Output Simultaneously in Room 111

Brief instructions for using the Room 111 mounted projectors to simultaneously display images from one of the Lab's mobile workstations, and from the room's VHS video recorder/player, the U-Matic video player, or the laserdisc player. These instructions assume that you have connected all of the workstation's cables.

For complete setup instructions, see MOBILE WORKSTATIONS in 111 - Step-by-Step and VIDEO OUTPUT in 111 - Step-by-Step

STEPS 1 - 4 ARE FOR COMPUTER SETUP - STEPS 5 - 8 ARE FOR VIDEO SETUP

1.0   On PRIMARY CONTROL (Console #1)

    1.1   Power ON.
    1.2   Ceiling speakers ON.

2.0   On RECEIVER (Console #1)

    2.1   Power ON.
    2.2   Select SWITCHER (displayed text: DVD/TV).

3.0   On SWITCHER (Console #1)

    3.1   Power ON.
    3.2   Deselect all buttons under the labels **CONTROL** and **I/O.**
    3.3   Under the label I/O, Select the button **RGBS.**
    3.4   Select button **CPU1** or **CPU2** depending on which wall jack the computer is connected to.
    3.5   If any green lights come on elsewhere on the switcher, deselect those buttons.
    3.6   Select button above label for projector output to be used for computer image projection: **(Proji CPU** or **Proj2 CPU).**

    • **PROJ1 CPU** button for projector nearest the classroom door.
    • **PROJ2 CPU** button for projector nearest the windows.

    **Only one projector can be chosen to display images from the computer.

    3.7   Press **ENTER.**

4.0   Projector Remote Control *(Should be one in classroom)*

Note: remote control does not work well with fluorescent lights on.

    4.1   Aim the remote control at the projector you are using, and press the blue power button on the upper left-hand corner. It will take up to a minute for the projector to warm up. There will be both solid and flashing green lights on the projector.
    4.2   Once there are 2 solid green lights on the projector indicating that it has warmed up, you should see the computer's image on the screen - if the projector is not warmed up there will be no image on the screen. If the projector is warmed up but there is still no image, press the button labeled **COMPUTER.** Try pressing **COMPUTER** once again if there is still no image on the screen.
    4.3   If you no longer need the projector, or if it will be turned off for more than 10 minutes, turn the projector off. Please note that you cannot immediately turn the projector

back on. It takes a few minutes for it to cool down and can be turned back on when you see a solid red light on the projector.

*** *To temporarily turn projector off, press MUTE on the remote. Projector will turn itself back automatically in 10 minutes, or when you press MUTE again.*

5.0   On SWITCHER (Console #1)

5.1   Power should still be ON.
5.2   Deselect all buttons under the labels **CONTROL** and **I/O.**
5.3   Under the label I/O, Select the button **RGBS.**
5.4   Select button VCR1 *(for VHS VCR)* or VCR2 *(for U-Matic)* or LDP1 *(for Laserdisc).*
5.5   If any green lights come on elsewhere on the switcher, deselect those buttons.
5.6   Select button above label for projector output to be used for video projection: **(Proji** VIDEO or Proj2 VIDEO). *You cannot choose the same projector chosen to display the computer's images.*

• **PROJ1 VIDEO** button for projector nearest the classroom door.

• **PROJ2 VIDEO** button for projector nearest the windows.

 **Only one projector can be chosen to display video images.

5.7   Press **ENTER.**

The following additional steps are necessary for audio output. The volume knob on the PRIMARY CONTROL is for the ceiling speakers. The volume knob on the RECEIVER is for the speakers on either side of the whiteboard.

 **When showing simultaneous video and computer images, AUDIO OUTPUT is only possible from the video source.

6.0   On SWITCHER

6.1   Under the I/O label: Deselect the **RGBS** button.
6.2   Under the I/O label: Select the **Audio** button.
6.3   Select button VCR1 *(for VHS VCR)* or VCR2 *(for U-Matic)* or LDP1 *(for Laserdisc).*
6.4   Select button above label for **PROJ1 CPU Audio output.**
6.5   Press **ENTER.**

7.0   Projector Remote Control *(Should be on classroom podium)*
Note: remote control does not work well with fluorescent lights on.

7.1   Take the remote control, point it towards the projector you are using, and press the blue button on the upper left-hand corner. This is the power button. It will take up to a minute for the projector to warm up. There will be both solid and flashing green lights on the projector.

7.2   Once there are 2 solid green lights on the projector indicating that it has warmed up, press the button labeled **VIDEO.** If the projector is not warmed up it will not come on. Try pressing **VIDEO** once again if the projector is warmed up but there is still no image on the screen.

7.3   If you no longer need the projector, or if it will be turned off for more than 10 minutes, press the blue power button on the remote. This will turn off the projector. Please note that you cannot immediately turn the projector back on. It takes a few minutes

for it to cool down and can be turned back on when you see a solid red light on the projector.

*** ***To temporarily turn projector off, press MUTE on the remote. Projector will turn itself back automatically in 10 minutes, or when you press MUTE again.***

8.0   On VCR, U-Matic or Laserdisc (Console #2)

8.1   Power ON to **VCR1** *(VHS VCR),* **VCR2** *(U-Matic)* or **LDP1** *(Laserdisc).*
8.2   Insert and start playing video or disc.

9.0   Clean up

9.1   Power OFF to Projectors.
9.2   Remove video or disc from player.
9.2   Power OFF to PRIMARY CONTROL.
9.3   Power Off to Workstation.
9.4   Disconnect all cables, but DO NOT disconnect the extension cables from either the cpu or the monitor cable.

Using the P.A. System in Room 111 - *Cheat Sheet*

Instructions for using the Room 111 public address system.

1.0   On PRIMARY CONTROL (Console #1)

    1.1   Select Power ON (button lit).
    1.2   Select P.A. SYSTEM ON (button lit). *This button is also on the room's podium.*

Please Note: The volume knobs on the PRIMARY CONTROL are for the ceiling speakers. The volume knob on the RECEIVER does not work with the public address system.

2.0   Clean up

    2.1   Power OFF to P.A. SYSTEM.
    2.2   Power OFF to PRIMARY CONTROL.

Using The Sharp Portable Projector- *Cheat Sheet*

Brief instructions for using the Sharp portable projector to display images from the Lab's PC and Mac mobile workstations.

1.0   Setup

1.1   Connect computer's network cable and plug in its power cord.

1.2   Connect extension cables kept with workstation (if not already connected):
a) one extension to monitor port on cpu (adapter needed with Mac)
b) the other extension to the monitor cable.

1.3   Connect the projector's black SHARP MONITOR cable***:
a) one end to the **COMPUTER RGB IN 1** port on projector
b) the other end to the extension cable leading to the monitor port on the cpu.

1.4   Connect the extension cable which is attached to the monitor cable to the **OUT** port on the projector***.

***   *Use the beige extension cables kept on the cart if more room is needed between the computer and the projector.*

1.5   Connect the projector's power cord from the projector to an outlet. You may need to use an extension cord

1.6   Power ON to computer.

1.7   Power on to Sharp in two steps:
a) turn on the power switch on the back of projector, /^\
b) press the power button on the top of the projector ^⏻^   or the ON button on the remote. *Note that the remote will not work well with the fluorescent lights on.*

1.8   After turning on the projector you will see a solid and a flashing green light on its top indicating that the projector is warming up (takes about 1 minute). When both lights are solid green, then the projector is warmed up.

2.0   Adjusting Height and Focus

2.1   The height of the projected image is adjustable using the two "feet" at the front of the projector which will drop down by pressing the purple buttons on the front. The "feet" can also be moved by screwing/unscrewing them.

2.2   To **FOCUS,** turn the outer ring around the lens for a sharper image.

3.0   Remote Control Additional Features *(Remote should be with the projector)*
Note: remote control does not work well with fluorescent lights on.

3.1   If you no longer need the projector, or if it will be turned off for more than 10 minutes, press the blue power button on the remote. This will turn off the projector. Please note that you cannot immediately turn the projector back on. It takes a few minutes

for it to cool down and can be turned back on when you see a solid red light on the projector.

*** ***To temporarily turn projector off, press BLACK SCREEN on the remote. Projector will turn itself back automatically in 10 minutes, or when you press BLACK SCREEN again.***

***If <u>AUDIO OUTPUT</u> from the workstation is needed, then you will have to use the speakers kept in the storage basket on the cart.**

4.0   Clean up

4.1   Power OFF to Projector. You will need to press either the projector's power button or the one on the remote, followed by turning off the back power button.
4.2   Power OFF to computer.
4.3   Disconnect all cables. Make sure that the projector's remote and the black SHARP MONITOR cable stay on the projector cart.

Using Video Output in Room 111 - *Cheat Sheet*

Brief instructions for using the Room 111 mounted projectors to display images and output sound from the room's VHS video recorder/player, the U-Matic video player, and the laserdisc player. For complete setup instructions, see Using Video Output in Room 111 - Step-by-Step

1.0   On PRIMARY CONTROL (Console #1)

    1.1   Power ON.
    1.2   Ceiling speakers ON.

2.0   On RECEIVER (Console #1)

    2.1   Power ON.
    2.2   Select SWITCHER (displayed text: DVD/TV).

3.0   On SWITCHER (Console #1)

    3.1   Power ON.
    3.2   Deselect all buttons under the labels **CONTROL** and **I/O.**
    3.3   Under the label I/O, Select the button **RGBS.**
    3.4   Select button **VCR1** *(for VHS VCR)* or **VCR2** *(for U-Matic)* or **LDP1** *(for Laserdisc).*
    3.5   If any green lights come on elsewhere on the switcher, deselect those buttons.
    3.6   Select button above label for projector output to be used for video projection: **(Proji VIDEO** or **Proj2 VIDEO).**

    • **PROJ1 VIDEO** button for projector nearest the classroom door.

    • **PROJ2 VIDEO** button for projector nearest the windows.

    **Both projectors can be chosen if both screens are being used for display.

    3.7   Press **ENTER.**

The following additional steps are necessary for audio output. The volume knob on the PRIMARY CONTROL is for the ceiling speakers. The volume knob on the RECEIVER is for the speakers on either side of the whiteboard.

4.0   On SWITCHER

    4.1   Under the I/O label: Deselect the **RGBS** button.
    4.2   Under the I/O label: Select the **Audio** button.
    4.3   Select button **VCR1** *(for VHS VCR)* or **VCR2** *(for U-Matic)* or **LDP1** *(for Laserdisc).*
    4.4   Select button above label for **PROJ1 CPU Audio output.**
    4.5   Press **ENTER.**

5.0   Projector Remote Control *(Should be on classroom podium)*
Note: remote control does not work well with fluorescent lights on.

    5.1   Turn off the fluorescent lights since the remote control will not work properly with those lights on.

    5.2   Take the remote control, point it towards the projector you are using, and press the blue button on the upper left-hand corner. This is the power button. It will take up to

a minute for the projector to warm up. There will be both solid and flashing green lights on the projector.

5.3   Once there are 2 solid green lights on the projector indicating that it has warmed up, press the button labeled **VIDEO.** If the projector is not warmed up it will not come on. Try pressing **VIDEO** once again if the projector is warmed up but there is still no image on the screen.

5.4   If you no longer need the projector, or if it will be turned off for more than 10 minutes, press the blue power button on the remote. This will turn off the projector. Please note that you cannot immediately turn the projector back on. It takes a few minutes for it to cool down and can be turned back on when you see a solid red light on the projector.

***   ***To temporarily turn projector off, press MUTE on the remote. Projector will turn itself back automatically in 10 minutes, or when you press MUTE again.***

6.0   On VCR, U-Matic or Laserdisc (Console #2)

6.1   Power ON to **VCR1** *(VHS VCR),* **VCR2** *(U-Matic)* or **LDP1** *(Laserdisc).*
6.2   Insert and start playing video or disc.

7.0   Clean up

7.1   Power OFF to Projectors.
7.2   Remove video or disc from player.
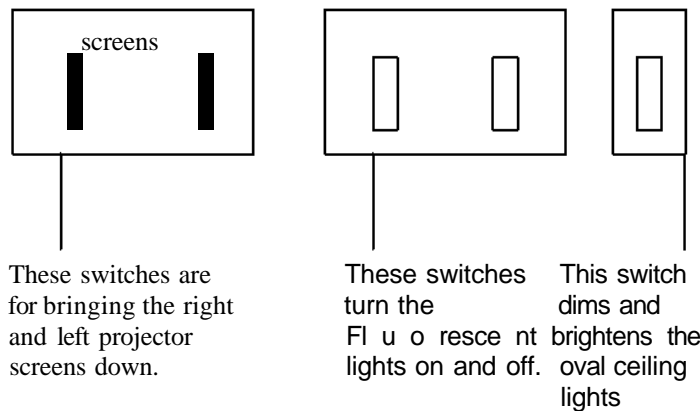7.3   Power OFF to PRIMARY CONTROL.

Using Video Output in Room 111 - *Step-by-Step*

Instructions for using the Room 111 mounted projectors to display images and output sound from the room's VHS video recorder/player, the U-Matic video player, and the laserdisc player.

0.0   Initial setup

    0.1   Look on the south wall (the wall with the whiteboard on it). On the left-hand side is a set of light switches *[see Figure A].*

Figure A

These switches are for bringing the right and left projector screens down.

These switches turn the Fl u o resce nt lights on and off.

This switch dims and brightens the oval ceiling lights

1.0   On PRIMARY CONTROL (Console #1)
This provides power to all of the components in the console, and to the ceiling speakers. It does not control power to the projector.   The volume knobs control the ceiling speakers.

    1.1   Select Power ON (button lit).
    1.2   Select Ceiling speakers ON (button lit).

2.0   On RECEIVER (Console #1)
The Receiver works in tandem with the Switcher (see next step) where you choose the source of the image and/or sound to be projected. The volume knob on the Receiver controls the speakers at the front of the room.

    2.1   RECEIVER should be ON (text is shown in display window).
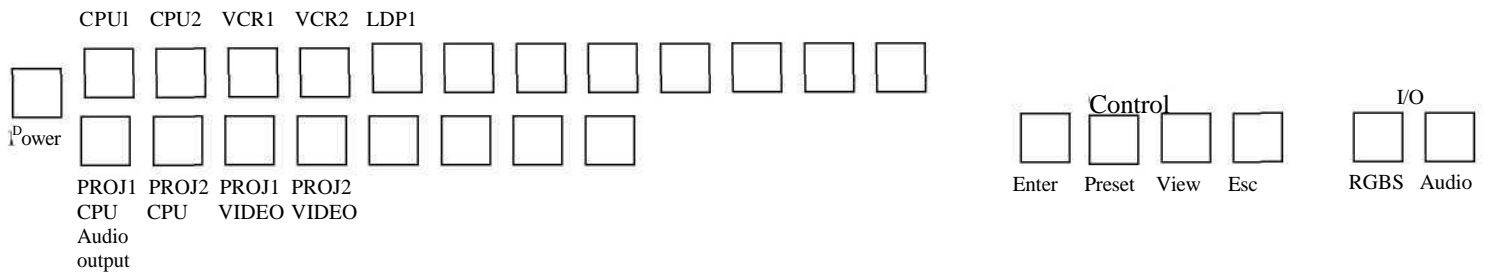   2.2   Select SWITCHER button (displayed text: DVD/TV).

3.0   On SWITCHER (Console #1) *[see Image below and Figure A]*
Here you first select the source of the video to be projected, either VCR1, VCR2, or LDP1. Then you select which projector will display the image from computer, either PROJ1A/IDEO, PROJ2A/IDEO, or BOTH).   You also use the Switcher to output sound.

Figure A

Switcher

CPU1 CPU2 VCR1 VCR2 LDP1

Power

PROJ1   PROJ2   PROJ1   PROJ2
CPU   CPU   VIDEO   VIDEO
Audio
output

Control

Enter   Preset   View   Esc

I/O

RGBS   Audio

3.1   Power should be ON (button lit).

3.2   Deselect all buttons under the labels **CONTROL** and **I/O** (lights above buttons should be OFF).

3.3   Under the label **I/O,** Select the button **RGBS** (light should come on).

3.4   Select button **VCR1** *(for VHS VCR)* or **VCR2** *(for U-Matic)* or **LDP1** *(for Laserdisc)* (red light should come on).

3.5   If any green lights come on elsewhere on the switcher, deselect those buttons.

3.6   Select button above label for projector output to be used for video projection: **(Proji VIDEO** or **Proj2 VIDEO).**

• **PROJ1 VIDEO** button is for the projector nearest the classroom door.
• **PROJ2 VIDEO** button is for the projector nearest the windows.

**Both projectors can be chosen if both screens are being used for display.

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3.7 Press "ENTER" button [on the right side of switcher under "Control" label].

The following additional steps in Section 4 are necessary for audio output. The volume knob on the PRIMARY CONTROL is for the ceiling speakers. The volume knob on the RECEIVER is for the speakers on either side of the whiteboard.

4.0   On SWITCHER

4.1   Under the **I/O** label: Deselect the **RGBS** button (light should go off).

4.2   Under the **I/O** label: Select the **Audio** button (light should come on).

4.3   Select button **VCR1** *(for VHS VCR)* or **VCR2** *(for U-Matic)* or **LDP1** *(for Laserdisc)* (red light should come on).

4.4   Select button above label for **PROJ1 CPU Audio output** (lower left-hand corner of switcher).

4.5   Press **ENTER** [right side of switcher].

5.0   Projector Remote Control *(Should be on classroom podium)*
Note: remote control does not work well with fluorescent lights on.

5.1   Take the remote control, point it towards the projector you are using, and press the blue button on the upper left-hand corner. This is the power button. It will take up to a minute for the projector to warm up. There will be both solid and flashing green lights on the projector.

5.2   Once there are 2 solid green lights on the projector indicating that it has warmed up, press the button labeled **VIDEO.** If the projector is not warmed up it will not come on. Try pressing **VIDEO** once again if the projector is warmed up but there is still no image on the screen.

5.3   If you no longer need the projector, or if it will be turned off for more than 10 minutes, press the blue power button on the remote. This will turn off the projector. Please note that you cannot immediately turn the projector back on. It takes a few minutes for it to cool down and can be turned back on when you see a solid red light on the projector.

*** *To temporarily turn projector off, press MUTE on the remote. Projector will turn itself back automatically in 10 minutes, or when you press MUTE again.*

6.0   On VCR. U-Matic or Laserdisc (Console #2)

6.1   Power ON to **VCR1** *(VHS VCR),* **VCR2** *(U-Matic)* or **LDP1** *(Laserdisc).*

6.2   Insert and start playing video or disc.

7.0   Clean up

7.1   Power OFF to Projectors.

7.2   Remove video or disc from player.

7.3   Power OFF to PRIMARY CONTROL.